

## CLAIMS

## 1. An information processing method comprising:

analyzing the drawing information at least including the information of at least one object that can be displayed and the layout designating information for specifying a relative position direction with respect to the direction of arranging said object;

determining a relative placing position of said object in a desired drawing area based on the layout definition information corresponding to the layout designating information obtained on analysis of said drawing information; and

generating the real display position information corresponding to the relative placing position of said object responsive to said arranging direction.

2. The information processing method according to claim 1 wherein said layout definition information includes the information indicating the size of said drawing area and wherein the drawing area and the relative placing position of said object in said drawing area are converted into a real display position.

3. The information processing method according to claim 1 wherein said object is displayed based on said real display position.

4. The information processing method according to claim 1 wherein the relative placing position of said object is updated responsive to a request for changing the drawing direction of said object and wherein the updated relative placing position of said object is converted to a real display position.

5. The information processing method according to claim 1 wherein the relative

placing position of said first object is determined based on the layout definition information of a first object; and wherein

the relative placing position of a second object is determined responsive to the thus determined relative placing position of the first object.

6. An information processing apparatus comprising:

means for analyzing the drawing information at least including the information of at least one object that can be displayed and the layout designating information for specifying a relative position direction with respect to the direction of arranging said object;

means for determining a relative placing position of said object in a desired drawing area based on the layout definition information corresponding to the layout designating information obtained on said analysis of said drawing information; and

means for generating the real display position information corresponding to the relative placing position of said object responsive to said arranging direction.

7. The information processing apparatus according to claim 6 wherein said layout definition information includes the information indicating the size of said drawing area and wherein said conversion means converts the drawing area and the relative placing position of said object in said drawing area into a real display position.

8. The information processing apparatus according to claim 6 further comprising:

means for displaying the object based on said real display position.

9. The information processing apparatus according to claim 6 wherein the relative placing position determining means of said object updating the relative placing position of said object responsive to a request for changing the drawing direction of said object and wherein

said conversion means converts the updated relative placing position of said object to a real display position.

10. The information processing apparatus according to claim 6 further comprising:  
means for inputting a request for changing the drawing direction of said object.

11. The information processing apparatus according to claim 6 wherein said placing position decision means determines the relative placing position of a first object is determined based on the layout definition information of said first object; said placing position decision means determining the relative placing position of a second object responsive to the thus determined relative placing position of said first object.

12. An information processing method comprising:

generating the information of at least one object that can be displayed;

generating the layout designating information specifying the relative position direction with respect to the arranging direction of said object; and

generating the drawing information at least including the object information and the layout designating information.

13. The information processing method according to claim 12 wherein said layout designating information includes the information representing the size of said drawing

area.

14. The information processing method according to claim 12 wherein said drawing information is distributed.

15. An information processing method comprising:

means for generating the information of at least one object that can be displayed;

means for generating the layout designating information specifying the relative position direction with respect to the arranging direction of said object; and

means for generating the drawing information at least including the object information and the layout designating information.

16. The information processing method according to claim 15 wherein said layout designating information generating means includes the information representing the size of said drawing area.

17. The information processing method according to claim 15 further comprising:

means for distributing said drawing information.

18. A medium for causing an information processing apparatus to execute a program including

analyzing the drawing information at least including the information of at least one object that can be displayed and the layout designating information for specifying a relative position direction with respect to the direction of arranging said object;

determining a relative placing position of said object in a desired drawing area

based on the layout definition information corresponding to the layout designating information obtained on analysis of said drawing information; and

generating the real display position information corresponding to the relative placing position of said object responsive to said arranging direction.

19. A medium for causing an information processing apparatus to execute a program including

generating the information of at least one object that can be displayed;

generating the layout designating information specifying the relative position direction with respect to the arranging direction of said object; and

generating the drawing information at least including the object information and the layout designating information.

20. An information processing method comprising:

analyzing the drawing information at least including the information containing at least one object that can be displayed, the information pertinent to the size of said object in the line direction and in the line feed direction and the information pertinent to the layout;

acquiring the coordinate information pertinent to a display start position of said object in a drawing area based on the result of analysis;

converting the coordinate information pertinent to said display start position based on the layout-related information obtained by the result of said analysis; and

converting the coordinate information pertinent to the converted display start

position into the real drawing coordinate information on a drawing area.

21. The information processing method according to claim 20 wherein said drawing information further includes the information pertinent to the size of said drawing area in the line direction and in the line feed direction; the coordinate information pertinent to the display start position converted being converted into the real drawing coordinate information in a drawing area based on the information pertinent to the sizes in the line direction and in the line feed direction of said drawing area.

22. The information processing method according to claim 21 wherein, if said object is horizontally written, said real drawing coordinate information is used.

23. The information processing method according to claim 21 wherein, if said object is vertically written, a difference obtained on subtracting the coordinate value in the line direction of said real drawing coordinate information from the size in the line feed direction of said drawing area as the coordinate value in the line direction of said real drawing coordinate information.

24. The information processing method according to claim 20 wherein said object is represented on display means based on the real drawing coordinate information.

25. The information processing method according to claim 20 wherein, if it is verified that a further object is to be displayed on said object, the drawing start coordinate information of said further object is generated based on the information pertinent to the size of said object in the line direction and in the line feed direction and on the layout-related information.

26. The information processing method according to claim 25 wherein said further object is drawn upstream or downstream of said object based on the drawing start coordinate information of said further object.

27. The information processing method according to claim 20 wherein, if it is verified that a decorative object is to be displayed on said object, the drawing start coordinate information of said decorative object is generated based on the information pertinent to the size of said object in the line direction and in the line feed direction and on the layout-related information.

28. The information processing method according to claim 27 wherein decoration is drawn upstream or downstream of said object based on the drawing start coordinate information of said decorative object.

29. An information processing method comprising:

capturing in storage means the drawing information at least including the information containing at least one object which has been transmitted and which can be displayed, the information pertinent to the size in the line direction and in the line feed direction of said object and the layout-related information;

analyzing said drawing information stored in said storage means and acquiring the coordinate information pertinent to a display start position of said object in a drawing area based on the result of said analysis;

converting the coordinate information pertinent to the display start position based on the layout-related information acquired by said results of analysis; and

demonstrating said object on said display means based on said real drawing coordinate information.

30. The information processing method according to claim 29 wherein the transmitted drawing information further includes the information pertinent to the size in the line direction and in the line feed direction of the drawing area and wherein the coordinate information pertinent to the converted display start position is converted into the real drawing coordinate information on said drawing area based on the information pertinent to said size in the line direction and in the line feed direction of said drawing area.

31. The information processing method according to claim 29 wherein, if said object is a horizontally arranged object, said real drawing coordinate information is used.

32. The information processing method according to claim 29 wherein, if said object is a horizontally arranged object, the difference obtained on subtracting said real drawing coordinate information from the size in the line feed direction of said drawing area is used as the coordinate value in the line direction of said real drawing coordinate information.

33. The information processing method according to claim 29 wherein, if it is verified that a further object is to be demonstrated on said object, the drawing start coordinate information of said further object is generated based on the information pertinent to said size in the line direction and in the line feed direction of said object and the layout-related information.



34. The information processing method according to claim 33 wherein said further object is represented upstream or downstream of said object based on the drawing start coordinate information of said further object .

35. The information processing method according to claim 29 wherein, if it is verified that a decorative object is to be added to said object, the drawing start coordinate information of said decorative object is generated based on the information pertinent to the size in the line direction and in the line feed direction of said object and on the layout-related information.

36. The information processing method according to claim 35 wherein decoration is demonstrated upstream or downstream of said object based on the drawing start coordinate information of said decorative object.

37. An information processing apparatus comprising:

means for receiving the drawing information at least including the information containing at least one object which has been transmitted and which can be displayed, the information pertinent to the size in the line direction and in the line feed direction of said object and the layout-related information;

storage means for storing said drawing information received by said receiving means;

signal processing means for analyzing said drawing information read out from said storage means, acquiring the coordinate information pertinent to a display start position of said object in a drawing area based on the result of said analysis,

converting the coordinate information pertinent to the display start position based on the layout-related information acquired by said results of analysis and for converting the coordinate information pertinent to the converted display start position into the real drawing coordinate information on the drawing area of said display means; and

control means for demonstrating said object on said display means based on said real drawing coordinate information from said signal processing means.

38. The information processing apparatus according to claim 37 wherein the drawing information transmitted further includes the information on the size in the line direction and in the line feed direction of said drawing area and wherein said signal processing means converts the coordinate information pertinent to the converted display start position into the real drawing coordinate information on the drawing area based on the information pertinent to said size in the line direction and in the line feed direction of said drawing area.

39. The information processing apparatus according to claim 37 wherein, if said object is a horizontally arranged object, said control means uses the real drawing coordinate information to display said object on said display means.

40. The information processing apparatus according to claim 37 wherein, if said object is a horizontally arranged object, said control means uses the difference obtained on subtracting said real drawing coordinate information from the size in the line feed direction of said drawing area as the coordinate value in the line direction of said real drawing coordinate information to display said object on said display means.

41. The information processing apparatus according to claim 37 wherein, if it is verified that a further object is to be demonstrated on said object, the drawing start coordinate information of said further object is generated based on the information pertinent to said size in the line direction and in the line feed direction of said object and the layout-related information.

42. The information processing apparatus according to claim 41 wherein said control means displays said further object upstream or downstream of said object based on the drawing start coordinate information of said further object from said signal processing means.

43. The information processing apparatus according to claim 37 wherein, if it is verified that a decorative object is to be added to said object, said signal processing means generates the drawing start coordinate information of said decorative object based on the information pertinent to the size in the line direction and in the line feed direction of said object and on the layout-related information.

44. The information processing apparatus according to claim 43 wherein said control means displays the decoration upstream or downstream of said object based on the drawing start coordinate information of said decorative object from said signal processing means.

45. An information processing apparatus comprising:

means for reading out the drawing information from storage means storing said drawing information, said drawing information including at least the information

containing at least one object which has been transmitted and which can be displayed, the information pertinent to the size in the line direction and in the line feed direction of said object and the layout-related information;

display means for displaying said object;

signal processing means for analyzing said drawing information read out from said storage means, acquiring the coordinate information pertinent to a display start position of said object in a drawing area based on the result of said analysis, converting the coordinate information pertinent to the display start position based on the layout-related information acquired by said results of analysis and for converting the coordinate information pertinent to the converted display start position into the real drawing coordinate information on the drawing area of said display means; and

control means for demonstrating said object on said display means based on said real drawing coordinate information from said signal processing means.

46. The information processing apparatus according to claim 45 wherein the drawing information stored in said recording medium further includes the information on the size in the line direction and in the line feed direction of said drawing area and wherein said signal processing means converts the coordinate information pertinent to the converted display start position into the real drawing coordinate information on the drawing area based on the information pertinent to said size in the line direction and in the line feed direction of said drawing area.

47. The information processing apparatus according to claim 45 wherein, if said

object is a horizontally arranged object, said control means uses the real drawing coordinate information to display said object on said display means.

48. The information processing apparatus according to claim 45 wherein, if said object is a horizontally arranged object, said control means uses the difference obtained on subtracting said real drawing coordinate information from the size in the line feed direction of said drawing area as the coordinate value in the line direction of said real drawing coordinate information to display said object on said display means.

49. The information processing apparatus according to claim 45 wherein, if it is verified that a further object is to be demonstrated on said object, the drawing start coordinate information of said further object is generated based on the information pertinent to said size in the line direction and in the line feed direction of said object and on the layout-related information.

50. The information processing apparatus according to claim 49 wherein said control means displays said further object upstream or downstream of said object based on the drawing start coordinate information of said further object from said signal processing means.

51. The information processing apparatus according to claim 45 wherein, if it is verified that a decorative object is to be added to said object, said signal processing means generates the drawing start coordinate information of said decorative object based on the information pertinent to the size in the line direction and in the line feed direction of said object and on the layout-related information.

52. The information processing apparatus according to claim 51 wherein said control means displays the decoration upstream or downstream of said object based on the drawing start coordinate information of said decorative object from said signal processing means.

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